

## REMARKS

### I. STATUS OF THE CLAIMS

Claims 20 and 22 are amended herein. No new matter has been added.

Claims 1-14, 16, 17 and 19 are allowed.

In view of the above, it is respectfully submitted that claims 1-23 are currently pending.

### II. EXAMINER INTERVIEW SUMMARY

At the outset, Applicants thank Examiners M. Sedighian and Q. Wang for meeting with Applicant's Representative, Uchendu Anyaso, on October 25, 2005 to discuss the merits of rejected claims 15, 18, 20 and 22. During the interview, Applicant's Representative discussed the distinctive features of Applicant's invention as specifically recited in claims 15, 18, 20 and 22 over the Kasahara reference. Among the issues specifically discussed was a monitoring request signal including a monitoring command signal with a first optical wavelength and a response carrier wave with a second optical wavelength which is different from the first optical wavelength, as specifically recited in, for example, claim 15. Further, with respect to claim 18, the feature of a monitoring request signal including a monitoring command signal with a predetermined optical wavelength and a response carrier wave with the same predetermined optical wavelength was discussed as a distinctive feature over Kasahara. With respect to claims 20 and 22, Applicant's representative emphasized the merits over Kasahara of a modulation controller modulating an excitation light provided by the repeater to the upstream optical transmission line with the monitoring response signal to thereby superimpose the monitoring response signal on a carrier wave propagating through the upstream optical transmission line.

The Examiners agreed to further consider the merits of Kasahara and/or conduct further search after they receive the response to the outstanding Office Action.

### III. REJECTION OF CLAIMS 15, 18 AND 20-23 UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY KASAHARA ET AL (U.S. PATENT 6,804,469)

In the present invention as recited, for example, in claim 15, Applicant specifically recites, amongst other novel features, "a monitoring request signal including a **monitoring command signal** with a first optical wavelength and a **response carrier wave** with a second optical wavelength which is **different** from the first optical wavelength". (Emphasis added).

In the Office Action, the Examiner cites to (column 3, lines 50-67 and column 4, lines 1-

27) of Kasahara as sections that purport to teach Applicant's invention. However, a review and evaluation of these sections reveal that Kasahara fails to teach, disclose, or suggest the specifics of Applicant's claimed invention. Kasahara is silent as to a first optical wavelength associated with a monitoring command signal, a second optical wavelength associated with a response carrier wave, and how the response carrier wave with the second optical wavelength is different from the first optical wavelength. More specifically, Kasahara fails to teach, disclose or suggest "a monitoring request signal including a monitoring command signal with a first optical wavelength and a response carrier wave with a second optical wavelength which is different from the first optical wavelength", as specifically recited by Applicant in, for example, claim 15.

Instead, in Kasahara, the optical transmitter is installed in at least one of the two terminal stations for transmitting to the repeater an optical signal that includes an operation command to notify a state of a predetermined supervisory target. Kasahara fails to disclose, teach or suggest the optical wavelengths of the monitoring command signal and the response carrier wave. Moreover, if the terminal station of Kasahara does transmit over the upstream link a separate response carrier wave in addition to a monitoring request signal, there must be an optical signal path in each optical amplifier repeater 5 to route a received response carrier wave from the upstream link to the downstream link. Kasahara fails to disclose or suggest such a signal path. Therefore, it is respectfully submitted that Kasahara fails to disclose, teach or suggest "a monitoring request signal including a monitoring command signal with a first optical wavelength and a response carrier wave with a second optical wavelength which is different from the first optical wavelength", as specifically recited in, for example, claim 15.

Furthermore, in the present invention as recited in, for example, claim 18, Applicant specifically recites, amongst other novel features, "a monitoring request signal including a **monitoring command signal** with a predetermined optical wavelength and a **response carrier wave** with the **same predetermined optical wavelength**". (Emphasis added).

In the Office Action, it is respectfully submitted that the Examiner fails to cite where Kasahara discloses "a monitoring command signal with a predetermined optical wavelength and a response carrier wave" having "the **same predetermined optical wavelength**". This feature differentiates claims 15 and 18, and it is respectfully submitted that both claims should not have been lumped together in the rejection. See, for example, Office Action at page 2, item 2. More specifically, Kasahara is silent as to a monitoring request signal including a monitoring command signal with a predetermined optical wavelength and a response carrier wave with the same predetermined optical wavelength.

In view of the above, it is respectfully submitted that the rejection is overcome with respect to claims 15 and 18.

Claim 20 specifically recites "a monitoring controller producing a monitoring response signal **indicating status information of the repeater.**" Kasahara fails to disclose this feature.

In the Office Action, it appears that the Examiner believes that in Kasahara, the response signal 06 which includes the response code indicates the status information of the repeater. See, page 3, paragraph one of the present Office Action.

However, Kasahara discloses that the supervisory controller 12 supplies the modulator/demodulator 11 with a bit serial response signal 06 including the response code, **the code describing the content of the operation command and its own address code.** See, for example, Kasahara at column 9, lines 23-28. It is respectfully submitted that describing the content of the operation command and its own address code as espoused in Kasahara is in stark contrast to "a monitoring response signal indicating status information of the repeater" as specifically claimed by Applicant in, for example, claim 20. See, for example, page 11, lines 9-13 of the specification of the present application which describes status information. More specifically, Kasahara fails to disclose, teach or suggest "a monitoring controller producing a monitoring response signal indicating status information of the repeater", as specifically recited in, for example, claim 20.

Moreover, Kasahara discloses **modulating a pumping light with a bit serial response signal.** See, for example, Kasahara at column 9, lines 23-28. This is in contrast to Applicant's claimed invention as in, for example, claim 20 that recites "**a modulation controller modulating an excitation light**". It is respectfully submitted that the scheme of modulating a pumping light with a bit serial response signal as espoused in Kasahara is in contrast to "a modulation controller modulating an excitation light" as specifically recited by Applicant in, for example, claim 20. Further understanding and appreciation for Applicant's claimed invention would be found in, for example, FIG. 1 and page 11, lines 4-22 of the specification of the present application.

Furthermore, there is provided in the present invention as recited, for example, in claim 20, "**a modulation controller modulating an excitation light provided by the repeater to the upstream optical transmission line with the monitoring response signal to thereby superimpose the monitoring response signal on a carrier wave** propagating through the upstream optical transmission line." (Emphasis added). Kasahara also fails to disclose, teach or suggest this feature.

Instead, Kasahara discloses how the WDM coupler 139 combines the pumping light generated by the pumping laser diode 116 with the received optical signal to generate the optical signal including the response optical signal superimposed thereon. See, Kasahara at column 9,

lines 40-43. However, Kasahara fails to disclose, teach or suggest Applicant's claimed invention as recited in, for example claim 20, a modulation controller modulating an excitation light provided by the repeater to the upstream optical transmission line with the monitoring response signal to thereby superimpose the monitoring response signal on a carrier wave.

In view of the above, it is respectfully submitted that rejection is overcome with respect to claim 20.

Although the above comments are specifically directed to claim 20, it is respectfully submitted that the comments would be helpful in understanding differences of claims 21-23 over the cited references.

#### IV. CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

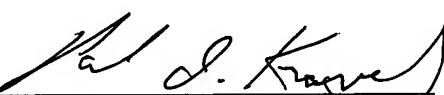
If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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